A Publication of Lakehead Constructors Inc.

SPRING 2011

Look to Lakehead

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Greetings, All,

I would like to welcome you all to our inaugural issue of *Look to Lakehead*, and I hope you find the articles interesting and informative. I would like to thank the contributions of our valuable trade partners, suppliers and subcontractors, for without them, this publication would not be possible.

For nearly a century, Lakehead Constructors Inc. has provided construction services to the upper Midwest. We continue to lead the way in safety, quality, innovation and service to our customers by continually investing in people, equipment and technology. In this very competitive business, the dedication of our quality employees and highly skilled tradespeople is necessary to achieve our goal of becoming the contractor of choice for our customers.

Our good relations with owners and labor allow us to form alliances on significant projects to benefit all parties. We have listed a couple of projects in this issue where the alliance of all interested parties worked closely together to achieve tremendous success.

In this issue, you will also find an interesting article on our Zero-Injury Program, which has had tremendous success since implementation in January 2005. Safety is a core value at Lakehead Constructors Inc., and we care deeply about personal safety on the job and at home.

One of our most recent accomplishments is the Certificate of Registration as an ISO 9001:2008-registered construction company. The certification was achieved in August 2010 and is a major event, considering there are only a handful of construction companies in the country with this designation. I hope you find the article on ISO registration enlightening.

In closing, I would like again to thank our employees, suppliers, subcontractors, unions and associates who make Lakehead Constructors the great company it is. For additional information regarding our company, capabilities and project experience, please visit our website at www.lakeheadconstructors.com.

Best regards,

Brian Maki
President and CEO

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Mission Statement

The mission of Lakehead Constructors is to provide innovative, reliable and high-quality services to clients throughout the upper Midwest. We treat our clients honestly and provide services that represent an excellent value. We fulfill our mission by developing highly trained and loyal employees who work as a team to anticipate, identify and respond to clients' needs.

Vision Statement

Lakehead Constructors' vision is to be the contractor of choice for our clients. Our exceptional employees allow us to partner with clients to continually identify ways to improve existing services and to build on Lakehead's experience and quality innovation to adapt our expertise.

Markets We Serve

Institutional and Commercial Construction Services
Oil and Petrochemical
Power Generation
Mining and Steel Industries
Pulp and Paper

Services We Provide

Pre-Construction Services
Design-Build
Turn-Key Construction Services
Equipment Rental
Emergency Repairs
Secondary Containment Liners
Concrete Construction
Specialized Grouting
Pre-Engineered Metal Buildings
Boiler Repair
Equipment Alignment
Construction Management
Plant Maintenance
Plant Shutdowns and Outages
Crane Service
Equipment Maintenance
Sitework and Preparation
Concrete Restoration
Steel Erection
Specialized Coatings
Kiln Construction and Servicing
Bridge and Tunnel Construction
General Construction
Mechanical Services
Environmental Services
Heavy Rigging
Pile Driving
Shoring and Underpinning
Refractory Services
Millwright Services
Industrial Piping
Precipitator Erection

Core Values

In support of LCI's objective of being the most admired contractor, we are building on a framework of strong corporate values.

Safe Production

- Record production with lack of injuries
- Good housekeeping and orderly work areas
- Well-maintained equipment, proper training and procedures
- Looking out for and correcting each other
- Safe conditions, safe behavior

Customer Focus

- Listening to the customer
- Being responsive and on time
- Meeting quality expectations
- Help the customer succeed

Creating Economic Value

- Doing the right things right the first time
- Elimination of waste and inefficiency
- Breakthroughs in productivity and technology

Bias for Action

- Getting things done
- Reduced red tape
- Barrierless
  - Call anybody you want
  - Management by fact
  - Plan the work – work the plan

Trust, Respect and Open Communication

- Open access to information
- Constructive conflict
- Delegation to the appropriate level
- Toleration of failure in pursuit of business success
- Encouraging the acceptance of different opinions
- Feeling an obligation to explain your actions to those they affect
- Gender and racial diversity

Group/Individual Accountability

- Behaving in line with our core values
- Being responsible for our actions
- Providing plans/standards/expectations
- Holding yourself and/or the group to a high standard of performance
- Walk the talk

Integrity

- Doing what you say you're going to do
- No hidden agendas
- Doing the right thing
- Being truthful
- Zero tolerance – not walking away from a situation
- Be credible

Teamwork

- Actively involve others in decision-making
- Know when to take a leadership role and when to be an active member
- Recognize the value of teamwork and the synergy it creates

Recognize and Reward Achievement

- Celebrating successes
- Stress training and development
- An effective appraisal of performance
- Giving a simple thank-you

Environmental Stewardship

- Going beyond compliance
- Being socially responsible
- Anticipating and addressing potential impacts before they occur
- Personal accountability
- Operating to conserve the environment for future generations

These core values are important to our future.

Everyone will be judged on his or her support of and commitment to them.

photo courtesy of Minnesota Power

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Zero-Injury

by Stephen Jones, Vice President of Safety and Field Resources

Safety and zero injuries are core values at Lakehead Constructors. It is the company's goal and expectation that no employee will suffer an injury in the execution of our work. This requires a shared commitment and responsibility from all employees and departments within the organization.

These are easy words to say and easy to believe. They make for great slogans and colorful logos and stickers. Truly making them a reality required a strong commitment to a cultural change to create an environment where management and workers both aren't just saying all the right things — they're doing them, too.

We had been achieving what most would consider a good level of safety performance based on the common safety metrics used to measure such performance, OSHA/MSHA incident rates and insurance experience modification rate (EMR), relative to our industry's averages. We considered ourselves to be a regional leader in construction safety performance. But we were still experiencing employee injuries. Despite what the numbers were telling us, we weren't good enough, and something had to change. We had to become dedicated to safety excellence. That's the journey and the challenge the company undertook with the implementation of our Zero-Injury Program.

In 2004, executive management had the opportunity to attend a presentation on zero-injury as a safety leadership concept. The presentation provided compelling evidence from construction companies that had adopted zero-injury processes and techniques and achieved world-class levels of safety performance. To see and hear about companies attaining that level of performance in our industry completely undermined the traditional belief and acceptance that injuries were part of the construction process. One of the concepts put forth in that presentation was that experiencing a different result required a different approach. In other words, continuing to do the same things and expecting different results was typically not successful. We had been plateaued in terms of performance, and doing more of the same thing wasn't having any significant impact on the result. Another was that most companies have been conditioned to base and compare safety performance to industry averages, rather than measuring their performance against the best performers in their industry. These comments resonated with LCI management and triggered the company to take a closer look at how we had thought about and implemented safety to this point and what we ultimately wanted to achieve in terms of performance. We had found our vehicle for change.

Safety starts with people like you and me. While it's important to look out for ourselves and accept individual responsibility for following safe practices, that's not enough. Just as no one individual can do all the jobs necessary to complete a project, no one individual can be responsible for project safety performance. Jobs get done because individuals perform together to create the result. This teamwork produces production and quality, and it can produce safety too. While safety does begin with each and every one of us, it requires the involvement of everyone on site. Our attitudes and behaviors develop from what we believe and are reinforced by what we experience. If those experiences are negative, then bad attitudes and bad practices may be the result. If the team is directed and focused on a common belief, such as elimination of all injuries and at-risk behaviors, and

that is reinforced by an environment where employees are empowered to be actively involved in safety, high levels of performance can be achieved. Creating and maintaining positive work environments and challenging traditional beliefs regarding injuries and safety are critical to zero-injury success.

Most of the original study and development of the zero-injury concept was conducted by the Construction Industry Institute (CII) in Texas, which commissioned a study of award-winning construction companies who had worked millions of man hours without a lost-time injury in the late 1980s.[1] That study identified safety and management processes common to their operations that directly influenced their safety performance. They found that there were nine critical safety categories of processes being used by all companies who were successful at reducing or eliminating injury. LCI decided to use this model as the foundation for creating and implementing our Zero-Injury program. These nine core categories of programs include:

- Demonstrated management commitment to zero injury
- Employee participation and involvement
- Adequate staffing for the safety function
- Multi-level pre-planning
- Safety orientation, training and education
- Comprehensive alcohol- and substance-abuse programs and testing
- Incident reporting and investigation of all incidents
- Subcontractor management
- Employee safety recognition and incentive programs

Some of these processes were already in place and functioning in the company. Some were only partially implemented, and others were lacking entirely. A complete review of our existing programs was undertaken to identify needed revisions, and additional processes were created to supplement those chosen to form the foundation of our Zero-Injury Program. The effort required nearly a year to complete, culminating in the implementation of the company Zero-Injury Program in January 2005.

In addition to the technical component of the program, the importance of employee acceptance and involvement had to be addressed. Communicating to each employee the fundamental guidelines of safe work practice as part of a zero-injury philosophy is an important first step in empowering them to recognize, respond and act with safety in mind at all times. The following three principles/practices are communicated daily to every employee:

- Conduct all work in a safe manner
- STOP all work immediately to correct any unsafe condition encountered
- Take immediate corrective action to ensure work may proceed in a safe manner

Keeping employees mentally engaged in safety and actively involved in executing zero-injury processes, whether it is reviewing their specific work task and completing a pre-task planning card, conducting a daily pre-use equipment inspection or conducting a daily safety meeting, are important to the program's success.

These are the tools and supportive programs that we've chosen to help us pursue and ultimately achieve zero-injury. There are hundreds of additional resources and processes that can be added to this core as the program matures and capabilities expand. Since that time, we have continued to audit and monitor both the program content and employee involvement. It takes significant time and energy to effect culture change. We have experienced zero-injury on individual projects as well as significant time periods for the entire company. Setbacks in the form of incidents are thoroughly reviewed and seen as opportunities to improve our effort and process. Our successes serve to motivate and reinforce our decision and belief that to pursue zero-injury is the right thing to do.

The most important component of the program remains accepting, communicating and reinforcing the belief that just because injuries occur, it doesn't mean that injuries must occur. To have a zero-injury workplace, the injuries-will-occur mindset must be challenged and changed. Being persistent and remaining focused on working the zero-injury processes implemented will create the zero-injury result. Motivating employees and supporting them with training and knowledge to think safe and follow that safe thinking with safe behavior are worth the effort. Employee safety as a value allows all operations to be performed with employee safety built into the operation.

Safety is an active process. Great safety performance doesn't just happen.

Reference

1 Construction Industry Institute, Austin, Texas: *Zero Injury Techniques*. Product 32.1 of the Zero Injury Taskforce, Nelson, Emmitt J., Principal Author, 1993.

Lakehead's ISO 9001 Quality Journey

by Shawn Rojeski, Manager, Corporate Quality

ISO 9001:2008 (ISO 9001, version 2008) is one of the most successful tools used for improving business processes of an organization. Known for its process style approach and customer-centered requirements, ISO 9001 has become an internationally recognized standard by organizations across countless industries and business types.

Today, when the customer is king, any organization in the construction industry needs to have a well-defined, robust and results-orientated management system to remain competitive and stay ahead of your competition in the market place. Why is there such increasing demand for ISO 9001 certification in the construction industry? While ISO 9001 does not guarantee the quality of companies' services or products, these standards do require companies to define and document their operating practices and determine whether personnel are appropriately trained to perform their designated functions. By undergoing the ISO 9001 registration process, companies can uncover deficiencies in their systems. Achieving certification not only requires correcting those inadequacies, but further involves assessing and analyzing the root cause of each problem to ensure that it won't reoccur in the future. Thus, companies that comply with the standards demonstrate to project owners that they maintain, at a minimum, sound business practices.

What has been in the past traditionally geared toward manufacturing and service industries, the ISO 9001 standard can today be applied to any company, in any industry, to achieve countless benefits and increased system performance.

ISO, which stands for International Organization of Standardization, is the world's largest developer and publisher of international standards and is headquartered in Geneva, Switzerland. ISO 9001 is an internationally recognized quality standard that is process-based. This voluntary certification recognizes organizations that can link business objectives, operating effectiveness and fulfilling customers' requirements. Companies that achieve management system certification in ISO 9001 have demonstrated effective implementation of documentation and records management, top management's commitment to their customers, establishment of clear policy, good planning and implementation, good resource management, effective process control, measurement and analysis. Within the ISO network of 163 countries, which includes the United States, there are more than 1 million companies worldwide that are registered under ISO 9001:2008. Lakehead Constructors Inc. is currently recognized as only one of a handful of general contractors in the entire United States to achieve this ISO registration status and make this investment in quality.

There are a number of reasons LCI chose to pursue ISO certification. Sometimes a customer may insist upon it, sometimes a company does it to do business in

a specific market, and sometimes it's done because the company's management really wants to improve the way business is done. For Lakehead Constructors, the last reason was our motivation. LCI's mission is to provide innovative, reliable, high-quality services to our clients, and ISO certification is consistent with that mission.

ISO 9001:2008 offers a variety of benefits to the construction industry. These benefits range from better resource planning to effective monitoring and control of the project — from improved employee efficiency to reduced customer complaints, and from increased productivity to enhanced market image. The ISO 9001:2008 standard places emphasis on customer needs and expectations and improving business performance through continuous improvement. What this really means is that we will understand the project requirements and customer expectations before we start the work, we will monitor the status throughout, and we will be confident we met the customers' requirements at project completion. And because our process for improvement relies on continuous feedback, we always encourage customers to audit our performance throughout the project and also when our work is finalized. This lets us know what we did well and where we need to improve.

The ISO certification will drive continuous improvement and contribute to:

- Consistent and effective control of key processes and project management
- Promotion and standardization of good working practices
- Provision of a vehicle for training new employees
- Effective management of risk and reducing crisis
- More effective data analysis, generation of key performance metrics and continual improvement objectives
- Greater emphasis on communication, leadership, change management and adequacy of training
- A planning and review process that ensures the system in place remains suitable, effective and capable of identifying new opportunities
- Effective remote site management, accountability and contractual control
- Promoting control of suppliers and subcontractors and the development of effective supply-chain management
- Worldwide recognition and improved market image

Achieving the ISO certification was not easy or effortless. There were numerous steps involved, which took participation from all employees within the organization and required an approximately 18-month timeline to help LCI achieve ISO certification on our initial attempt.

- January 2009 – formal decision to pursue ISO certification
- June 2009 – employee-awareness training begins for employees of the organization
- Consultation and training assistance from a third-party firm
- Gap analysis to find out the difference in our existing system and compare to the ISO 9001 standard requirements
- Development and finalization of a quality policy and company objectives
- Development, finalization and implementation of company policies and procedures
- Monitoring of the new system requirements
- Internal auditor training and implementation of the internal audit system
- Management review meetings to assess the effectiveness of the LCI quality management system
- June 2010 – pre-assessment audit of the system by a third-party registrar to ensure the system is implemented per the ISO 9001:2008 requirements and that the organization is ready for the final certification audit
- July 2010 – certification audit
- August 2010 – ISO certificate awarded


CERTIFICATE OF REGISTRATION

SRI Quality System Registrar

ANAB

Having been audited in accordance with requirements of

ISO 9001:2008 – ANSI/ISO/ASQ Q9001-2008

SRI Quality System Registrar, Seven Fields, Pennsylvania, USA, hereby grants to:

Lakehead Constructors, Inc.

Registration of the management system at its locations:

2916 Hill Avenue, Superior, Wisconsin, USA
8371 Enterprise Drive, Mountain Iron, Minnesota, USA

The conditions for maintaining this certificate of registration are set forth in the SRI registration agreements R20.3 and R20.4. Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2008 requirements may be obtained by consulting the organization.

Scope of ISO 9001:2008 registration: "Providing general contractor, industrial maintenance, preconstruction, and construction management services for the industrial, commercial, and institutional communities throughout the Upper Midwest."

Exclusions: Design and Development; Service Provision

Initial SRI registration date: August 23, 2010

Current registration period: August 23, 2010 through August 22, 2013

Signed for SRI: Christopher H. Lake, President & COO

Certificate Date: August 23, 2010
Certificate Number: 009418
Registration Number: 3907-00

ISO 9001 SRI CERTIFIED

MP Boswell Retrofit Project

Cohasset, Minnesota

by Dean Barrett, Vice President of Construction

When it came time to launch a $200 million-plus generator upgrade driven by mercury reduction legislation, Minnesota Power turned to a longstanding partner, Lakehead Constructors Inc., to be the lead alliance contractor.

Lakehead Constructors has been Minnesota Power's contractor of choice for decades. As a full-service general contractor, LCI has the senior management experience and the staffing capability to lead and coordinate projects in a wide range of scope and scale. The company performs maintenance work at all Minnesota Power facilities in north central and northeastern Minnesota. This continuing relationship was a natural fit when Minnesota Power needed a partner it could trust with a large environmental upgrade project that presented formidable challenges.

Minnesota Power, a division of Allete Inc., started a major environmental upgrade of its 350-megawatt (MW) Unit 3 in spring 2007. This generating unit is located at the Boswell Energy Center in Cohasset, Minnesota.

The project involved several processes to meet emissions goals and ultimately led to the installation of a selective catalytic reduction (SCR) system, an activated carbon injection system, a fabric filter baghouse, two induced draft fans and a wet-flue gas desulfurization (WFGD) system.

Minnesota Power's historic commitment to environmental stewardship, coupled with stringent state and federal regulations, set the bar very high. The objectives were to:

1. Reduce sulfur dioxide (SO_2) by 90 percent
2. Reduce nitrous oxides (NO_x) by 81 percent
3. Reduce particulate matter by 93 percent
4. Reduce mercury by up to 90 percent

photo courtesy of Minnesota Power

Minnesota Power employed Hitachi Power Systems for the supply and design of the SCR and WFGD systems; Hamon supplied the fabric filter/sorbent injection system; and Burns & McDonnell provided the balance of the project's design.

This major renovation of Boswell's second-largest generating unit would rise on a small footprint of land squeezed between Blackwater Lake and the existing Unit 3 facilities. A high level of planning and coordination was required to simultaneously proceed with staged construction while keeping the existing plant operational to serve the utility's 144,000 power customers.

Lakehead Constructors took on a variety of responsibilities, from project safety, day-to-day coordination and construction logistics to marshaling the tight lay-down and fabrication areas. These responsibilities were in addition to skillfully performing the civil and structural installations required of the entire project. A number of specialty contractors also played a part in successfully completing the project.

The goal of every LCI construction project is to create and ensure a safe workplace, and the Boswell retrofit project achieved an excellent safety record. This was achieved through the dedication and support of strong union labor contributions and a consistent safety message from MP, LCI and alliance partner management. Minnesota Power and Lakehead Constructors demonstrated their commitment to a safe workplace by staffing for safety and recognizing outstanding safety efforts. There was a site-specific safety committee established that included representatives from union labor and management officials from Minnesota Power, Lakehead Constructors and other key contractors. With nearly 900,000 manhours worked, the alliance achieved an OHSA LTIR of 0.45, which calculates to 84 percent below industry averages.

Lakehead Constructors was instrumental from the beginning in the utility relocations and foundation construction for the project. The reinforced concrete construction process included the installation of 1,500 displacement pilings by a specialty contractor, followed by prep work for the pile caps. More than 1,500 tons of rebar and 11,000 cubic yards of concrete were installed. Each process area had a number of pile caps that were formed and poured around a designed number of displacement pilings. With the pile caps poured, it was time to form and pour the piers to support the structural steel. When the piers were completed, backfilling to grade commenced. With close coordination, the reinforced concrete slab work started, and structural steel erection began.

Erection of more than 5,400 tons of structural steel was one of many challenging phases of this effort. None of the process areas had a greater part of the total tonnage of structural steel than the SCR unit support structure. It took significant effort to erect the support steel over the top of an existing, functioning wet scrubber building. The design by Burns & McDonnell also called for installing displacement piling, pile caps (for the foundations) and, finally, a structural steel "bridge" to support the SCR unit.

Winter weather can be an imposing hurdle to executing a project in northern Minnesota. Temperatures reaching 30 degrees below zero and heavy snowstorms are conditions that must be expected and were, in fact, experienced during the winters of 2007 and 2008.

"Getting out of the ground," an old construction phrase, is especially critical for cold-climate projects where construction of foundations and underground utilities are best completed before subzero temperatures set in. Work was therefore sequenced to ensure that construction could continue through the winter months. Weather conditions prompted Minnesota Power to house the FGD system equipment in a permanent build-

ing to allow reliable operation and maintenance in the depth of winter.

It took careful planning and coordination for Lakehead to develop an erection plan. Preassembled structural sections were set into place, necessitating a large capacity crane to accommodate the load of the preassembled pieces and the radius of the load respective to the crane. Lakehead Constructors deployed a 1,000-ton Liebherr LR1800 crane with a 400-foot boom to accomplish these heavy lifts (see photos). This mammoth crane, transported to the construction site on 80 semi-trucks, was used to lift structural steel and duct work for seven months.

Another highlight of the structural installation involved the preassembly and construction of a pipe rack bridge across Blackwater Lake, which supplies the intake structure for the Boswell Energy Center. The bridge's purpose was to support piping that moves ash from the filter fabric building to a new ash silo. Designed by Burns & McDonnell, the bridge was more than 500 feet long. This particular pipe rack was new construction that started with installation of a sheet pile retaining wall and finished across the bay on a peninsula. The bridge design included a span of 216 linear feet and required the construction of a temporary access road to facilitate installation. The road served as access to install displacement piling and the pile cap foundations, as well as a hoisting deck for the cranes used to install the preassembled structural components.

photo courtesy of Minnesota Power

There were a number of bridge preassemblies made in the adjacent lay-down area. These were then trucked out on the road for hoisting and installation. Each preassembled component was stabilized with shoring and joined to the preceding assembly. The process took a number of iterations. The shoring was removed once the components were connected, first to each other and then to the permanent support structures.

The shoring was reassembled to temporarily support the next assembly as needed. After the major bridge structure was completed, a walkway, a drip pan, and insulated and uninsulated piping were installed. The road itself was constructed to allow water to flow underneath it by way of several large culverts. It was built with a geotech-fabric base at the lake elevation, topped by fill and, finally, crane mats hefty enough to support the calculated structural steel loads and crane movement during transport. When the bridge construction was complete, the road, the culvert and the geotech fabric were removed, and the lakeshore was restored to its original, natural condition.

Overall, the Boswell Unit 3 project was successful on multiple levels — safety, quality, schedule and budget. Work was completed in time for the start of a scheduled August 2009 tie-in outage. Operation of Unit 3 resumed in November, and performance tests were successfully completed by February 2010. From the project release to the start of commercial operation, the environmental retrofit was completed in approximately three years.

"Lakehead Constructors delivered considerable value to Minnesota Power and our customers throughout the Boswell 3 Environmental Improvement Project," said Al Rudeck, vice president – generation at the Duluth-based utility. "Lakehead shares our safety and integrity values, which were evident through all phases of the project. Lakehead's safety leadership complemented our project expectations in this regard and set the tone across the jobsite for safety, quality and productivity excellence."

Key construction, outage and performance test milestones were met and accomplished on an exacting schedule. Performance test results exceeded the ambitious goals that had been set. Emission tests showed that NO_x had been reduced by 92 percent, and SO_2 was 99 percent removed. Particulate matter had been reduced by 95 percent, and 94 percent of mercury emissions had been removed as a result of the project.

The performance of the refurbished Boswell Unit 3 is a point of pride for Minnesota Power. It could not have been accomplished without the participation and partnership of Lakehead Constructors.

Investing in People

by Steve Allison, Allison and Associates

The marketplace is changing rapidly, customer expectations continue to go up, and the way we used to do things does not work anymore. These three observations of the marketplace hold true for just about every company in the marketplace. The leadership team at Lakehead Constructors recognized these trends and decided to do something proactive about it. In exploring options for how to effect change and implement continuous improvement programs, the team recognized that, if everyone in the organization was going to change, the leaders should go first.

The search for a development program generated five questions:

1. How do you determine an individual manager's development needs?
2. If we could determine those needs, how would we design an individual improvement plan to address those needs?
3. Where does the individual motivation to change come from?
4. Where do mentoring and coaching come from, and what do they look like?
5. If we were able to answer the first four questions, how could we measure the results so we could track our progress?

Those five questions were answered by a leadership development program known as the Effective Management Program, offered through Allison & Associates of Duluth, Minnesota. So, in May 2007, 12 members of Lakehead's management team began their own development process in the Effective Management Program.

The Effective Management Program is a comprehensive on-the-job approach to management development based on the assumption that certain managerial practices produce better results than others. It assesses strengths and development needs of participants in the program. The information it provides enables individual managers to identify areas where changes in their managerial or supervisory behavior can produce timely and measurable results.

How the Program Works

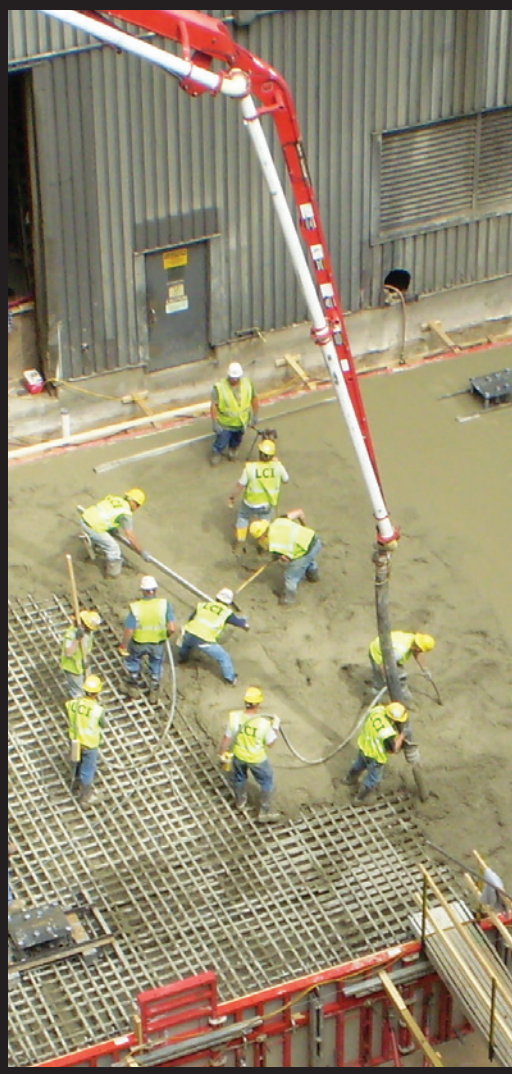
Each participating manager and a group of supervisors, peers and direct reports complete a questionnaire describing the manager's on-the-job behaviors. The combined results, which are computer-processed and -categorized, then provide a perception comparison for the participating manger. This feedback shows how others describe the manager's effectiveness compared to his/her own descriptions.

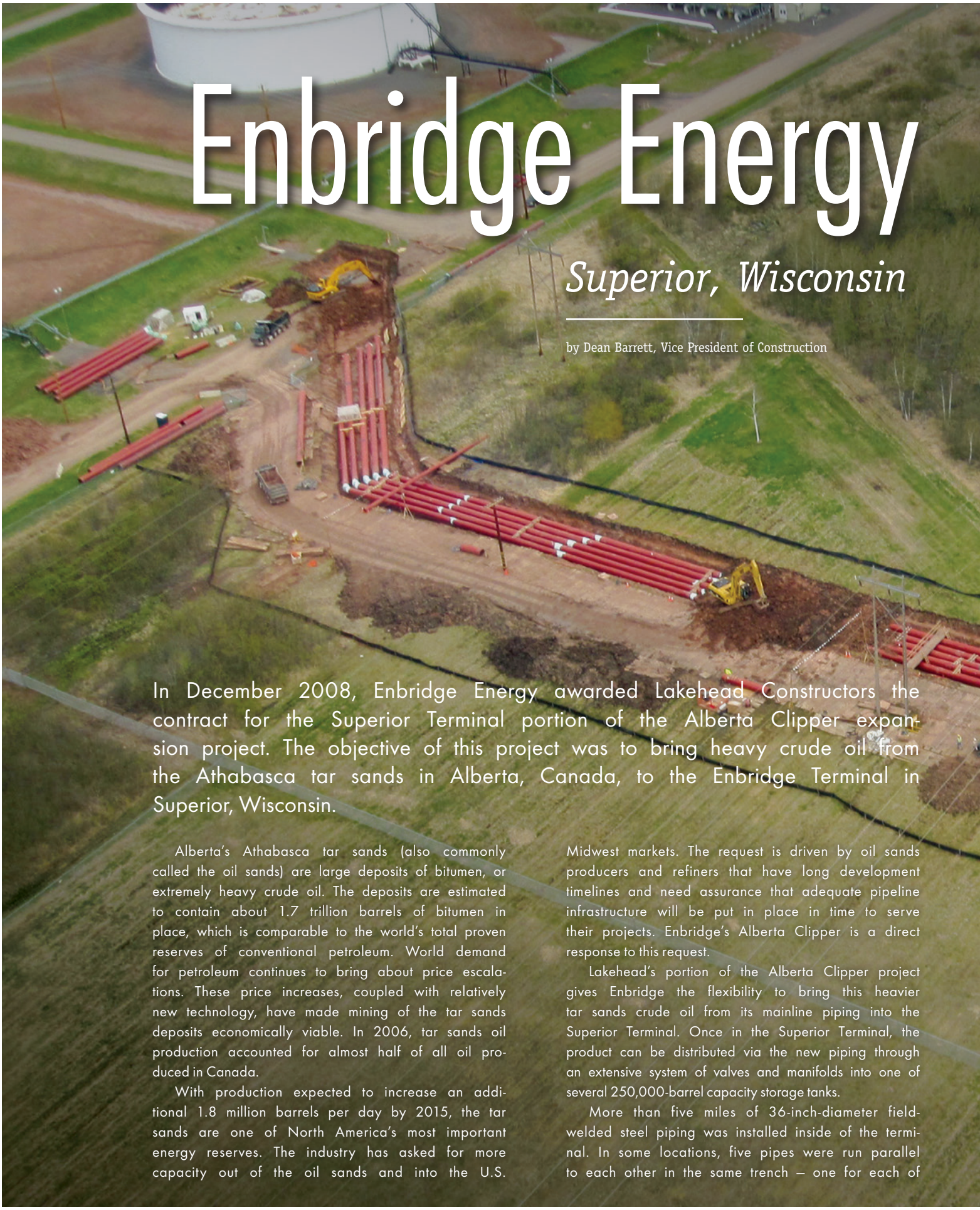
What Is Done with the Effective Management Information?

In a group setting, the descriptions are interpreted and analyzed to help managers understand the meaning of the feedback. Managers identify their individual strengths and development needs. The perception of their management style becomes as visible to them as it is to their colleagues. While considering job requirements, organizational culture, team-building requirements and personal values, managers identify areas that, when improved, lead to more effective, productive management results and a more positive perception from others.

It's an Ongoing and Ongrowing Process

Once individual needs were identified and actions plans for change were established, the group met on a quarterly basis to discuss what changes had been made, how those changes were received by others and how to overcome any challenges encountered along the way. At the end of the first year in the program, each manager went through the description process again and asked for feedback from the supervisors, peers and direct reports who had given feedback at the inception of the program. The results were very rewarding. The group as a whole showed a 14 percent improvement in their leadership skills. One manager experienced a 29.7 percent growth in leadership skills. As a result of this success, an additional 22 managers joined the program. All Lakehead participants in the Effective Management Program continue to meet on a quarterly basis as a part of their continuous improvement program.





Enbridge Energy

Superior, Wisconsin

by Dean Barrett, Vice President of Construction

In December 2008, Enbridge Energy awarded Lakehead Constructors the contract for the Superior Terminal portion of the Alberta Clipper expansion project. The objective of this project was to bring heavy crude oil from the Athabasca tar sands in Alberta, Canada, to the Enbridge Terminal in Superior, Wisconsin.

Alberta's Athabasca tar sands (also commonly called the oil sands) are large deposits of bitumen, or extremely heavy crude oil. The deposits are estimated to contain about 1.7 trillion barrels of bitumen in place, which is comparable to the world's total proven reserves of conventional petroleum. World demand for petroleum continues to bring about price escalations. These price increases, coupled with relatively new technology, have made mining of the tar sands deposits economically viable. In 2006, tar sands oil production accounted for almost half of all oil produced in Canada.

With production expected to increase an additional 1.8 million barrels per day by 2015, the tar sands are one of North America's most important energy reserves. The industry has asked for more capacity out of the oil sands and into the U.S. Midwest markets. The request is driven by oil sands producers and refiners that have long development timelines and need assurance that adequate pipeline infrastructure will be put in place in time to serve their projects. Enbridge's Alberta Clipper is a direct response to this request.

Lakehead's portion of the Alberta Clipper project gives Enbridge the flexibility to bring this heavier tar sands crude oil from its mainline piping into the Superior Terminal. Once in the Superior Terminal, the product can be distributed via the new piping through an extensive system of valves and manifolds into one of several 250,000-barrel capacity storage tanks.

More than five miles of 36-inch-diameter field-welded steel piping was installed inside of the terminal. In some locations, five pipes were run parallel to each other in the same trench – one for each of

Alberta Clipper Project

the five new tanks constructed in conjunction with this project.

Two of the biggest challenges for Lakehead on this project were the aggressive project schedule and the numerous underground obstructions inherent to working in an active terminal that has been in operation since the 1960s. The project was originally scheduled to start in April 2009 and be completed by late 2010. However, due to complications in acquiring environmental permits for this project, construction did not start until late July 2009. The late start forced some of the work to take place during winter conditions. The months of October 2009, June 2010 and August 2010 brought significantly more rainfall than average – sometimes twice as much as normal.

Despite the late start and poor weather, Enbridge needed the project substantially complete as close as possible to the originally scheduled completion date. With crude oil from Alberta flowing into the already completed pipeline toward Superior and transmission contracts in place, the owner needed the terminal project completed for storage. Schedule recovery was achieved through a focused effort that entailed selective overtime, weekend work and a short-duration night shift for fitup of large-bore pipe welds.

The project schedule was also made possible by the extensive use of shop fabrication for the construction of two significant manifolds. Pipe was shipped via truck to a fabricator in Alabama, where it was shop-welded in modules, and then trucked to the site in Superior. Lakehead's pipefitters assembled the manifolds with very good fitups, proving that our field measurements prior to fabrication and our coordination efforts with the fabricator were a success.

Lakehead was able to meet Enbridge's target completion date of early November 2010. Hydrotesting and tie-ins to the fourth and fifth tanks were complete by mid-December 2010, and four out of five new tanks were full of oil by the end of 2010.

The construction of a new pipeline in the Superior Terminal presented Lakehead with many challenges. Given the facility's age and numerous prior expansions, we had to constantly be vigilant of what might lie beneath the ground surface. In some locations, the excavation crew was required to hand-probe every 12 inches along the pipeline alignment.

Mechanical excavation was not permitted within two feet of a pipe without fully exposing it to verify its location. Significant time was spent to "pothole" existing lines by waterwashing, otherwise known as a hydrovac machine. Hand excavation or hydrovac was required at all times whenever excavation was required within 12 inches of an existing line. Lakehead's crews were very successful in protecting the existing below-grade infrastructure throughout the duration of the project.

Active below-grade pipelines that interfered with the pipeline alignment and foundation locations were very common. In more than one instance, LCI crews started an excavation only to discover the presence of an active line in direct conflict with a concrete foundation. The result was a stoppage of work and bouncing the crew to a different location while the conflict was addressed by a design modification.

Conflicts between existing pipelines and the new pipeline profile had to be addressed by the fabrication of "sags" in the new pipeline. The sags were constructed by field-welding 45-degree elbows and straight sections of pipe to dip the new pipe beneath the existing pipe. The process caused delays to the pipeline construction productivity rates, as it required significant time to measure, cut, weld, X-ray and finally coat the welds so that the pipe-laying process could continue.

The dedication to having a safe project was evident in the joint efforts of Enbridge, Lakehead Constructors and project partner project supervision and trades workers to create and maintain a safe work environment. This project showcased the positive influence our Zero-Injury Program has made on our workforce. Daily safety meetings were conducted and attended by supervision, field workers and Enbridge personnel to ensure that everyone working

on the project was aware of what other work was going and in what locations. This allowed potential safety concerns and issues to be addressed prior to the start of work and ensured better coordination of work throughout the day. The project's safety record is a testament to a culture that prioritizes safety; more than 140,000 manhours were worked by Lakehead and its project partners without a lost-time accident.

Lakehead takes pride in delivering a high-quality project to our clients, and the Alberta Clipper project was no exception. Enbridge frequently commented on the high quality of our work, from the concrete foundations, to field- and shop-welded piping, to steel platform work and electrical power and controls. Lakehead consistently provided our client with exceptional workmanship.

Despite numerous challenges along the way, Lakehead and Enbridge focused on working together as a team with the common goal of delivering the Alberta Clipper Superior Terminal expansion on time and on budget, always keeping a safe and high-quality project as top priorities. It is on a project such as this that Lakehead's people, experience and dedication to being our clients' contractor of choice shine brightest.

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